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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,630	02/20/2004	Matthew D. Diehl	64373.000542	4133

7590 10/03/2005  
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EXAMINER
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CARIASO, ALAN B

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/781,630

Applicant(s)

DIEHL, MATTHEW D.

Examiner

Alan Cariaso

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-23, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 10 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20 May 2004</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 2, 5, 8 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by BRASS et al (US 2003/0123254 A1).

3. BRASS discloses a non-lethal laser device comprising: a base (119-fig.2, 919-figs.9-10); a plurality of lasers (paragraph 0015) (103, 105 in fig.2, 904 in fig.9) mounted to the base (119, 919), the plurality of lasers comprising: a first laser (1603a, fig.18) and second laser (1603b, fig.18) projecting respective first (A) and second (B) laser beams in a first direction (fig.18) and overlapping at a first distance forming separate first and second first-order illumination zones (left grey shade of 1605a,b in fig.18) and a first second-order illumination zone (dark shade right of 1605a,b) beyond the first distance; wherein at least one of the lasers has a wavelength of about 400 nm to 700 nm (paragraphs 0055, 0080); a power supply (123, fig.2); a power switch system (121-fig.1, 321-fig.3) connecting the power supply (123) to the plural lasers (103,105) to selectively energize the plural lasers (103,105); wherein the base (119) comprises a portable hand-

held device (101, fig.2); wherein the base (119, 919) is movably mountable to fixed or portable mounting platform (120-fig.2, 913-fig.10 or any reference plane the device rests on).

4. Claims 1 and 11-16 are rejected under 35 U.S.C. 102(b) as being anticipated by TULLIS (US 6,102,552).

5. TULLIS discloses a non-lethal laser device comprising: a base (left surface in fig.4, 30-fig.5, 31-fig.6, 32-fig.7); a plurality of lasers (2,3, col.3, line 66 to col.4, line 1) mounted to the base, the plurality of lasers (2,30 comprising: a first laser (2), a second laser (3) and third laser (any other laser source adjacent 2 or 3) oriented to project first (5), second (6) and third laser beams in a first direction (fig.1), wherein the first (5) and second (6) laser beams overlap at a first distance ( $<13$ , fig.1) the second (6) and third (below 6) laser beams overlap at a second distance ( $<13$ , fig.1) which appears equal to the first distance, forming respective first, second and third first-order illumination (7, fig.1) before the first distance and respective first, second and third second-order illumination (adjacent line 10, fig.1) beyond the first distance; wherein the plurality of lasers comprises at least three lasers arranged in a linear pattern (figs.1 & 4), a triangular pattern (corner of lasers 2, 3 and adjacent laser in fig.6 or 7), a circular pattern (fig.5).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-9, 11-23, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over STEPHENS (US 6,722,771) in view of CHEW (US 2004/0165380).

8. STEPHENS discloses a non-lethal laser device comprising: a base (60), a plurality of lasers (col.1, lines 28-29) mounted to the base (60); at least first, second and third lasers (28, 30, 32 in fig.4) and fourth laser (any adjacent 28, 30 or 32) oriented to project corresponding laser beams in generally a same first direction; wherein at least one of the plurality of lasers (28,30,32) have wavelength of 400-700 nm (col.2, lines 40-43), about 532 nm (green) and about 650 nm (red); a power supply (38, fig.3) connected to a power switch system (near 14 in fig.1, S-1,S-2 ... S-4 in fig.3) to selectively energize the plural lasers; the plurality of lasers comprises two or more laser groups (rows of 28,30,32 in fig.5 or shade-coded in fig.4), each of the two or more laser groups comprising one or more lasers, the power switch system (S-1...S-4 in fig.5) selectively energizes each of the laser groups independently (col.3, lines 22-49); wherein the power switch system comprises a plurality of two-position switches, a plurality of multi-position switches or combination thereof (col.3, lines 22-49); wherein the base (60) comprises a portable hand-held device (fig.3) or movably mountable on at least a fixed platform (any reference plane or movable user-hand support); wherein the

plurality of lasers (28,30,32 in fig.4) comprises at least three lasers arranged (adjacently) in a linear pattern (cluster of lasers 28 in fig.4), a triangular pattern (cluster of lasers 30 in fig.4) and circular pattern (cluster of 28 about 34 in fig.4); further comprising an incandescent lamp (34) oriented to project light in the first direction.

9. However, STEPHENS does not disclose first and second laser beams overlap at a first distance, third laser beam overlap the first and second laser beams at second and third distances, and a fourth laser beam overlap the third laser beam at a second distance from the base. CHEW teaches a cluster of lasers (figs.2-4) of at least 4 lasers that are adjacently positioned on the base and projecting corresponding laser beams (242, figs.3 & 4) that overlap each other (dotted lines) in the same direction, and given the same cross-sectional area/size of each beam would overlap at least one same distance from the base (310) for the purpose of maintaining a homogeneous light output even when any of the light emitting devices or lasers fails (paragraph 0034).

10. It would have been obvious to one having ordinary skill in the art at the time of the invention to provide cluster of lasers of the laser device of STEPHENS with the overlapping laser beams as taught by CHEW in order to project a homogeneous light output even when some lasers fail, so that the desired signal light is clearly visible.

#### ***Allowable Subject Matter***

11. Claims 10 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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12. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record suggests: a high intensity directed acoustal device attached to the base and aimed generally parallel to the first direction (of the laser beam(s)); the second direction (of the third and fourth lasers) diverges from the first direction or converges with the first direction (of the first and second lasers).

### ***Conclusion***

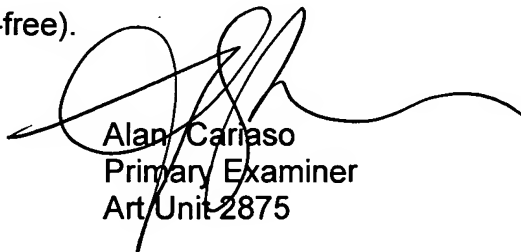
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. LEHMAN et al (US 6,150,943) shows housed laser director comprising at least three laser diodes (46,47,48) mounted on a base circuit board (44) directing laser light beams of various wavelength (col.6, lines 1-4) directed to intersect or overlap (fig.4) to produce indicating images (fig.9), including switches (104,106) and speaker for projecting audible signal (123). OROSZ, JR (US 5,836,081) shows two contiguous lasers (59,60 in fig.5) that produce first and second laser beams that overlap at intersection (11-fig.1) (col.5, lines 39-49). DEBIEZ et al (US 6,774,893 B2) show a linear array of lasers on a base (10) projecting overlapping laser beams (figs.1-2 & 5-6) towards a target surface (12), each laser being individually controlled.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan Cariaso whose telephone number is (571) 272-2366. The examiner can normally be reached on 9-5:30 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alan Carrasco  
Primary Examiner  
Art Unit 2875

September 29, 2005  
AC